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DCN: TZ4-R09018-TA-M09329

MEMORANDUM Documents Reviewed:

Part A Permit Application, 1980
ADHS Inspection Report, 1986
Part B Permit Application for Plants 2 and 4 and Burning Ground Area, 1987
Report of Investigation of Metals in Soils, 1988
ADHS Hazardous Waste Inspection Report, 1989
ADHS Hazardous Waste Inspection Report, 1990

I. FACILITY DESCRIPTION

Facility Name: Talley Defense Systems Plants No. 1-6 and Open Burn/Open Detonation Area

Address: 3500 North Greenfield Road; P.O. Box 849
Mesa, Arizona 85201

EPA ID Number: Plant 1 - AZD981425010
Plant 2 - AZD980816276
Plants 3 & 4 - AZD980885362
Plant 5 - AZD982361347
Plant 6 - AZD982471096
Burn Area - AZD020132502

CAL EPA Region (if CA): Arizona Department of Environmental Quality

RWQCB Region (if CA): N/A

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I. FACILITY DESCRIPTION (cont.)

A. Brief Description of Facility Operations and Hazardous Waste Management:

Talley Defense Systems is an aerospace company that designs, develops, and manufactures military aircraft rocket motors and rocket catapults for emergency escape and survival systems, including the required propellants. In addition, it manufactures gas generators for military purposes and propellants for automotive air-bag inflators. To accomplish these goals, Talley Defense Systems operates six plants in the Mesa, Arizona area.

Plants 2 through 6 are located on contiguous property near Thomas, Greenfield and North Highly Roads. Plant 1 is located separately at 4551 E. McKellips Road. The main burn pit for disposal of waste propellants and ordnance is located 1 mile north of Plant 2, on North Highly Road.

Rocket propellant and ordnance materials are manufactured at Plants 1, 2, and 3; air bags and restraints are tested at Plant 6. The main office area, where the facility's RCRA records are maintained is at Plant 5. Data processing activities for all 6 plants are conducted at Plant 6.

Waste solvents and other hazardous wastes generated by the manufacturing and rebuilding processes (other than propellants) are treated stored or disposed of at Plants 1, 2 and 4. Waste propellants are disposed of in the main burn pit, and, formerly, at a smaller pit at Plant 3. The burn pit at Plant 3 has been closed.

B. SWMU Release Inventory:

The following is a table of Solid Waste Management Units (SWMUs), releases and release potential to the various media. Releases are described with either a "D" for Documented, a "V" for Visual, or a "P" for Potential. If release information is unknown, a "U" is indicated. Potential releases are further characterized as "H," "M," or "L" for High, Medium and Low. RCRA-regulated units are starred with an asterisk.

SWMU #	Name	Soil	GW	SW	Air
TSD UNITS AT PLANT 1:					
	Building 2 - Stamping/Machining Depts.				
1	Liquid waste UST for Tumbler and Polishing Mill (W. of Bldg 2)	PM	PL	PL	PL

SWMU #	Name	Soil	GW	SW	Air
2	TCA Vapor Degreaser	PL	PL	PL	PM
		(ADHS Haz Waste Inspection Report [1986]: TCA replaced approximately twice per year, location for disposal of used TCA not indicated.)			
3	In-ground discharge of coolant overflow from TCA vapor degreaser	U	U	U	U
4	Waste Storage Area (oil, TCA, and solid wastes)	PL	PL	PL	PL
5	Waste Pile (S. side of Bldg.)	V	PL	PL	PH
		(ADHS Haz Waste Inspection Report [1986]: 2ft x 2ft x 1.5ft pile of fine metal particulate waste observed on the ground.)			
6	SW Loading Dock	PM	PL	PL	PM
		(ADHS Haz Waste Inspection Report [1986]: drums of waste oil, waste absorbent and rags, soapy wastewater and TCA stored at this location.)			
	Former Paint Stripping Area at Dock N. of Bldg 27)				
7	Stained Soil Area	V	PL	PL	PH
		(ADHS Haz Waste Inspection Report [1986] paint sludge on ground and moist, dark-colored stained soil northwest of the loading dock.)			
8	Container Storage Area	PL	PL	PL	PL
		(ADHS Haz Waste Inspection Report [1986]: storage of unknown substances in unlabeled drums, and containers of semihardened liquids--probably waste paint stripper.)			
	Misc. Container Storage Areas				
9	Main Container Storage Area (Bldg 52)	PM	PL	PL	PM
		(Process chemicals, haz. wastes, waste oil, and other wastes are stored at this SWMU. This is a non-RCRA-regulated 90-day storage area. All wastes generated are collected by contractor for off-site disposal.)			
10	Waste Propellant Storage (Bldg 48)	PH	PL	PL	PH
		(ADHS Haz Waste Inspection Report [1986]: badly corroded 5-gallon container of unknown material observed at unit. ADEQ Haz. Waste Inspection Report [1990]: no spill equipment observed within sight of accumulation pad, which increases the potential for a release.)			
11	Waste Propellant Storage Area (S. of Bldg 15)	PM-H	PL	PL	PH
		(ADHS Haz Waste Inspection Report [1986]: waste propellant in one drum not properly managed to avoid potential explosion. No evidence exists that this violation has been rectified.)			
12	Satellite Waste Accumulation Area (Bldg 15)	PM-H	PL	PL	PH
		(ADHS Haz Waste Inspection Report [1986]: bulging and damaged 55-gallon drum observed at unit. Design specifications for this area are unknown.)			
13	Empty Drum Storage (E. of	PM	PL	PL	PM

SWMU #	Name	Soil	GW	SW	Air
	Bldgs 21, 22)	(ADHS Haz Waste Inspection Report [1986]: drums [some in poor condition] containing unknown wastes improperly stored with empty drums. Design specifications for this area are unknown. No evidence exists that this violation has been rectified.)			
14	Process Chemicals and Painting-Related Waste Storage (E. of Bldg 29)	U	U	U	U
15	Container Storage at Warehouse (Bldg 55)	U (ADHS Haz Waste Inspection Report [1986]: indicates a drum of waste ammonium nitrate was stored in the building.)	U	U	U
	Misc. Tanks and Sumps				
16	Sump (S. of Bldg 24)	PL (Sump allegedly received SW runoff and rinsate from rinsing of grinder screens. Sump is open to the air, therefore, the potential for release to air is high. However, ADEQ Haz Waste Inspection Report [1990]) indicates TDS believes the sump never may have been used, and no evidence of recent use was observed.)	PL	PL	PH
17	Sump (W. of Bldg 18)	PM (Sump receives SW runoff and propellant mixer coolant water. It is open to the air, therefore the potential for release to the air is high.)	PL	PL	PH
	Other Discharges Through Pipes				
18	Surface Discharge (N. side of Bldg 27)	V (Discharges are from sink used for rinsing metal parts after paint stripping. ADHS Haz Waste Inspection Report [1986]: soil around discharge point exhibited distinct solvent odor.)	PM	PM	PH

SWMU #	Name	Soil	GW	SW	Air
19	Surface Discharge (N. side of Bldg 28)	PL (Discharges are from sink used periodically for silk screening.)	PL	PL	PL
20	Surface Discharge (W. side of Bldg 43)	D (Discharges from sink used for hand washing.)	PL	PL	PL
21	In-Ground Discharge (SE corner Bldg 45)	D (Liquid from spray paint booth water filter discharged to dry well. ADEQ Haz Waste Inspection Report [1990] reports effluent from wash-down is EP-toxic for chromium, but indicates dry well has been capped, and pipe has been sealed.)	PM	PL	PL
	Misc. Waste Piles and Stained Areas				
22	Stained Ground N. of Bldg 55, E. Bldg 53	V (ADHS Haz Waste Inspection Report [1986]: Oily Stains, white sludge and extensive area of soil staining observed; also, bin containing oily scrap metal leaking small amounts of oil to ground.)	PL	PL	PH
23	Concrete Pad and Waste Sandblast Abrasive Pile (Bldg 14)	V (ADHS Haz Waste Inspection Report [1986]: Waste sandblasting abrasive covers pad and soil, and no mention of release controls was made. No indication in the files that this problem has been rectified.)	PL	PL	PH
TSD UNITS AT PLANT 2: (Note: Plant 2 had been shut down at the time of the 4/26/90 Arizona DEQ inspection)					
* 24, 25	North and East Waste Accumulation Pads	V (Units included in Part B application. ADEQ Haz. Waste Inspection Report [1989]: drums were turned upside down which resulted in discharge of liquid to ground at this plant [repeat violation]. ADEQ Haz. Waste Inspection Report [1990] no spill equipment located in the immediate area of storage pads, thus increasing the release potential.)	PL	PL	PH
TSD UNITS AT PLANT 3:					
26, 27	Waste Propellant Surface Impoundments (2)/Burn Pits	D (Impoundments are unlined and contain both waste propellants and wastewater. Burn activities occurred in open air conditions. Part B Permit Application [1987] indicates burn activities no longer conducted at Plant 3. ADEQ Haz. Waste Inspection Report [1990] indicates soil in one pit is discolored, confirms pits no longer used for burn operations.)	PH	PL	D

SWMU #	Name	Soil	GW	SW	Air
28	Waste Accumulation Area	PL-M	PL	PL	PM
		(ADEQ Haz. Waste Inspection Report [1990] indicates waste propellant material had begun to crystalize in some drums. Crystallization creates a more explosive waste, according to conversation with ADEQ staff. No indication in the file that this violation has been rectified.)			
TSD UNITS AT PLANT 4:					
* 29, 30	Waste Propellants and Solvents Accumulation and Storage Areas	PH	PL	PL	PH
		(Both units included in Part B application. ADEQ Haz Waste Inspection Report [1989]: drums of solvent contaminated with water stored with bung holes open; incompatible wastes stored together without a physical barrier between them; adequate aisle space not maintained. No indication in files that these violations have been rectified.)			
TSD UNITS AT PLANT 6: (Currently Leased to TRW)					
31	Waste Accumulation Areas(?)	U	U	U	U
*32	Burning Ground Area/Haz. Waste Landfill near Plant 2	D	PM	PL	D
		(Waste propellant is burned in open pits burn boxes, or on metal burn pads. ADHS/ADEQ Haz. Waste Inspection Reports [1988, 1989, 1990] indicate operating practices for the unit [i.e., buried layers of waste, burn residues left on the ground, discharge of liquids to ground] meet the definition of a hazardous waste landfill. Inspection reports repeatedly identify numerous stains and/or residues on the ground at the burn area. Investigation of Metals in Soils Report [1988] indicated detectable EP-extraction concentrations of Ag, As, Ba, Cd, and Cr in 10 samples and Pb in all samples at concentrations ranging from .05-16.0 mg/L. Five of the samples exceeded the RCRA EP-toxicity standard (5 mg/L) for Pb.)			

II. ENVIRONMENTAL SIGNIFICANCE:

A. Hazardous Waste Exposure and Constituent Information

Instructions:

1. Designate as appropriate: D - documented evidence (e.g., analytical data), V - visual evidence (e.g., observed spills, stained soils, etc.), P -potential for release (e.g., past waste management practices suggest probable releases, known soil contamination has probably caused groundwater contamination, etc.). Specify documentation, who saw visual evidence, and/or rationale for potential release, if known.

2. Provide released or potentially released listed waste or constituent information to each appropriate media. Include volume of waste released, if known, toxicity (using toxicity table), and physical state of contaminants (e.g., gas, liquid, sludge, stable solid).

3. Indicate whether release has already been remediated.

4. Stabilization is appropriate if:
   a. there are actual or imminent exposure threats to humans or ecosystems at levels of concern;

b. inexpeditiously addressed releases will result in further significant contamination; or
c. site characteristics suggest that the site may be amenable to control or abatement of imminent threats.

__PL__ Imminent danger to public health/environment. Immediate action required; explain:

Only Plant 3 appears to be within a potential recharge zone for groundwater, but the plant is downgradient and/or side-gradient to wells in the area. Contaminants potentially could have been released to groundwater from the Waste Propellant Surface Impoundments at Plant 3, because these impoundments were unlined. However, this potential is considered low because the depth to groundwater in that area is 350 to 400 feet below land surface (BLS), and it is unknown, based on the file search and conversations with state regulators, whether the groundwater in the area is used for drinking water or agricultural purposes.

All surface water streams in the area are ephemeral, flowing only during periods of rainfall. The Southern Canal, which provides drinking water to the city of Phoenix (less than 25 miles away), flows within 500 feet of the Burn Area. The ADEQ reports that projectiles from the Burn Area have landed in the canal in the past. Since projectiles from the burn area may contain unburned propellant (which typically contains beryllium), regular usage of the Burn Area may pose a potential threat to human health, via the surface water pathway.

__PL__ Stabilization measures appropriate; explain:

Since groundwater investigations at the Waste Propellant Surface Impoundments have not been conducted to date, it is unknown if the impoundments have had an impact on groundwater, and whether stabilization measures are appropriate. However, given the low potential for releases to groundwater, the potential need for stabilization measures is probably also low.

__D__ Release to soil.

Visual and documented releases to surface soil have occurred at Plants 1, 2, 3, and the Burn Ground area. Visual evidence of releases (staining, oily-looking areas) at all three plants and the burn area have been described in ADEQ inspection reports (4/26/90, 5/18/89, 9/20-21/88, 10/29/86). Berylium and sodium azide propellants are disposed of by burning at the burn area, and in the impoundments at Plant 3. Sodium azide is a listed waste (D003). Burn residues from disposal of propellants are left on the ground at the Burn Area.

Contamination of soils at the Burn Area has been confirmed in the Report of Investigation of Metals in Soils, 1988. EP Toxicity levels in soil samples collected from Burn Area during the investigation were above the regulatory limits for lead. At the time of the May 18, 1989 ADEQ inspection, the EP Toxic soil had been placed on a plastic sheet and covered with plastic, but had not been removed from the site. Other sampling of soil at the Burn Area

(9/9/89) have detected traces of chromium and lead, but concentrations were below EP Toxicity limits.

Contaminants released (and their toxicities) include: metal particulate waste (type of metal particulates unknown), paint sludge, solvents (type unknown), chromium (3), waste sandblasting abrasive, waste rocket propellants (which may contain beryllium compounds; toxicity 3), heavy metals (As, Ba, Cd, Cr, Pb; toxicity 3).

__PH__ Release to groundwater.

According to potentiometric maps in the EPA files, groundwater does not exist under all plants. Only Plant 3 is located in a potential recharge zone for groundwater. Unlined Waste Propellant Surface Impoundments were used at Plant 3 in the past. No investigation has been conducted to date to determine whether the impoundments have released contamination to the groundwater. Although the depth to groundwater is 350 to 400 feet, the constant use of these lagoons and the fact that they were unlined, the potential seems moderate to high that a release of waste rocket propellants to groundwater has occurred. Waste rocket propellants, which typically contain beryllium are the only likely waste released. Toxicity of beryllium compounds in water is 18. Volumes of waste propellant released to the impoundments is unknown.

__D__ Release to surface water.

Surface water in the area of the six plants consists of ephemeral streams and the Southern Canal. The canal provides drinking water for the City of Phoenix, and the City of Mesa (the six Talley Plants are located on the outskirts of Mesa). ADEQ reports that projectiles from the Burn Area, which is approximately 500 feet from the canal, have reached the canal in the past. These projectiles may have contained unburned propellant, which typically contains beryllium. Toxicity of beryllium compounds in water is 18. Volumes of waste propellant potentially discharged to the canal by projectiles is assumed to be low.

__D__ Release to air.

Releases to the air occur routinely as a result of burning waste propellants at the Burn Area, although TDS has a permit to conduct these activities from Maricopa County. In addition, the potential for blowing contaminated dust and/or sandblasting dust from contaminated areas of soil on the six TDS plants is moderate to high, given the aridity of the area.

__PL__ High Potential for Migration (media: groundwater)

Plant 3 is side-gradient to existing wells in the area. Any contamination that might be released from Plant 3 Surface Impoundments to the groundwater would likely migrate downgradient, and not toward the existing wells. Should future development of groundwater resources downgradient of Plant 3, the potential for migration to those new wells would be high.

__YES__ Sensitive environmental receptors on-site or within 3 miles (endangered species, wetlands, etc.) Explain:

An assessment of endangered species or sensitive environments either has not been performed or has not been placed in the files. The Primate Center of Arizona, a research facility, is approximately 1500 feet north of the Burn Area. Ed Czira of ADEQ indicated that projectiles have landed on the Primate Center property during burnings in the past.

_____ No releases

Extent of Site Characterization (check one):

__X__ minimal _____ extensive _____ unknown

B. Exposure Considerations: (D - Documented, P - Potential) Skip this section if there is no potential or documented release.

1. Groundwater (GW): If potential exposure is a concern, please specify whether release is "highly suspected" (HS). A highly suspected release to groundwater means that there is known soil contamination from a large volume of mobile constituents with high migration potential where there is no known aquiclude between contaminated soil and ground water.

__PL__ Current GW drinking water source impacted

Groundwater occurs approximately 400 feet BLS, in wells in the area of the Talley Plants. However, it is unknown, based on the file search and conversations with state regulators, whether the groundwater is potable, or whether it is used for drinking water or agricultural purposes or both. Plant 3 is the only Talley Plant that is within a potential groundwater recharge area, and the plant appears to be situated downgradient and/or side gradient to any known wells. At Plant 3, there are unlined Waste Propellant Surface Impoundments (formerly used as burn areas for the waste propellant) which likely have released waste propellants to groundwater. However, hydrogeologic conditions at Plant 3 have not been investigated, so the extent and/or magnitude of any potential groundwater contamination from those impoundments is unknown.

_____ Sole Source (Class I) aquifer impacted

__PH__ Impacts on potable water aquifer but not currently used as drinking water

It is unknown whether groundwater in the area is used for drinking water or agricultural purposes. See above for further details.

Depth to GW: 350-400 feet BLS GW flow direction: SSE

Direction/Distance to nearby wells: From Plant 3: N (upgradient)/2000 ft; From Plant 2: SW (side gradient)/4000 feet; from Burn Area: SW/7000 feet.

Population Served: UNKNOWN

2. Surface Water (SW): Salt River and Southern Canal. The Salt River is an ephemeral stream (does not flow continuously); the Southern Canal is part of the Colorado River Project, and provides potable water to the City of Phoenix, and nearby communities (of which the City of Mesa is one).

__D__ SW drinking water source impacted

Ed Czira of the ADEQ reports that projectiles from the Burn Area have landed in the canal. These projectiles may contained unburned propellant.

Direction/Distance to SW: from Burn Ground: NW/2000 feet to river, NW/500 feet to canal; from Plant 2: NW/3000 feet to river, NW/2000 feet to canal; from Plant 3: NW/2500 feet to river, NE or NW/1500 feet to canal.

UNKNOWN Distance to sensitive environment related to SW contamination

500 feet Distance to drinking water supply intake or contact point (Southern Canal)

Net Precipitation: 6 inches 24 hour rainfall: unknown

Permitted outfall: NONE Permit Violations: N/A

__NO__ Flood prone area ABOVE 100-yr flood plain

__NO__ Fishing, recreation water source impacted

__PL__ Irrigation, livestock water source impacted:

As indicated above, the Southern Canal, which is used for drinking water supply is within one mile of all Talley Plants.

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The following near coastal waters and Estuary factors should not be considered in the initial staff prioritizing process. The information will be considered by management with the recommendation.

Check if contamination affects any of the following near coastal waters:

_____ Apra Harbor (Guam)
_____ Babelthaup Island Bays (Palau)
_____ Kaiaka Bay (Hawaii)
_____ Kailua Bay (Hawaii)
_____ Kona Coast (Hawaii)
_____ Morro Bay (California)
_____ Pago Pago Harbor (American Samoa)
_____ Pearl Harbor (Hawaii)
_____ San Diego Bay (California)
_____ Tijuana Estuary (California)

Check if contamination affects either of these projects:
_____ San Francisco Bay/Delta
_____ Santa Monica Bay

3. Air: Releases to the air occur routinely as a result of burning waste propellants at the Burn Area. These activities have been permitted by Maricopa County, and the Burn Area unit has been included in the TDS Part B Permit Application. In addition, releases to surface soils, and uncontrolled piles of particulate waste and sand blasting abrasive have been documented at all units.

PM-H Blowing dust; nearby population

The potential impact of this dust is unknown because the size and proximity of nearby population is not available in the file.

YES Air permits: (Maricopa Co. burn Permit for Burning Ground)

UNKNOWN Permit violations

YES Can contaminants migrate into air?

Through burning of waste propellants at the Burn Area, and perhaps through wind carried particulates (contaminated soil, particulates, and sandblasting grit), and volatile emissions from open drums, sumps, and documented spills and surface releases.

UNKNOWN Target Population < 4 miles (# and distance)

4. On site:

Accessibility: inaccessible ____
limited access X
poor security X

A small fence exists around the Burn Area, but access can be gained within 50 feet of the facility. The facility is on leased Federal and/or State property which is open to the public. In addition, the Salt River Indian Reservation is across the Salt River from the Burn Area, and inspectors have observed motorcycle, ATB and horseback riders very close to the Burn Area in the past. Past inspection reports have cited TDS for failure to maintain proper security around plants.

YES Observed surface soil contamination

Visual and documented evidence of surface releases at Plants 1, 2, 3, and Burn Ground.

III. SITE ENVIRONMENTAL PRIORITY

Instructions: Assign priority based on technical considerations only. Final priority should be briefly explained in terms of potential exposure to human health and the environment based on the technical considerations in Sec. II.

_____ High Priority

* Known or highly suspected release which has resulted in, or which has high potential for, exposure to human population and sensitive environments (other than near coastal waters and estuary project sites), in the short term (< 10 years). Choose this priority if there is known or highly suspected contamination to a sole source aquifer currently being used.

X Medium Priority

* Known or highly suspected release with potential for exposure to human health and sensitive environments (other than near coastal waters and estuary project sites) in the long term (> 10 years).

_____ Low Priority

* Known or highly suspected release, but unlikely adverse effect on human health and the environment.

_____ No Further Action

* No evidence of a release that could adversely affect human health and the environment.

Comments/Rationale to support priority:

Poor housekeeping and negligent hazardous waste management practices have lead to obvious contamination of surface soils at the Burn Area and at Plants 1, 2, 3, and 4. With the exception of the surface impoundments at Plant 3, the likelihood of migration of soil contamination from any of the units or spill areas to groundwater in the alluvial aquifers, is extremely

low because groundwater is a minimum of 350 feet BLS, and evapotranspiration exceeds rainfall. The surface impoundments at Plant 3 are unlined, and have been receiving wastewater contaminated with propellants (listed hazardous wastes) throughout their history. Therefore, these units pose the greatest threat to groundwater contamination, and the extent of subsurface contamination caused by these SWMUs should be investigated.

Of all six plants and the Burn Area, the Burn Area is the location of probably the worst soil contamination. However, this contaminated area may not be of environmental significance since the unit is situated on bedrock. Hydrogeologic reports indicate there are no groundwater wells installed in fractured bedrock in the region, which suggests the bedrock is not highly fractured, and/or water-bearing. A more thorough inventory of the wells in the area as well as a review of the regional geology should be conducted to confirm that bedrock is not fractured and is not water bearing, regionally.

The Salt River, situated approximately 2000 to 3000 feet to the northwest of the plants, is an influent river (i.e., it recharges the aquifer). Since it only flows during and after rain storms, and since evapotranspiration exceeds rainfall, it is unlikely that surface runoff from any of the plants will reach this water course.

IV. RCRA PERMITTING STATUS

A. Contact Person(s):

	Date	Name Contacted	Phone	Agency
1.				EPA-Permits
2.	8/15/91	Ed Czira	(602) 257-6822	State-Permits
3.				RWQCB (CA only)
4.				Other (specify)
5.				

B. Current Status (mark all applicable):

Instructions: For source, indicate file document or numeral for contact person listed above.

__X__ Operating RCRA TSDF; Source: Part A and Part B Permit Applications; 1988 and 1990 Arizona DHS/DEQ Hazardous Waste Inspections; review of files; discussions with Ed Czira at ADEQ

The Burn Area has been permitted (under an ISD) only for burning waste propellant, and only those propellants listed in the Part A Permit Application. The ADEQ cited TDS in 1988 and 1990 inspections for conducting landfilling activities at the Burn Area because the area is covered with waste propellant (unburned) residues and refuse, a buried layer of what appeared to be waste propellant and pieces of equipment were observed in the sidewall of an open trench, and bulk uncontainerized liquid was observed on the floor of a burn pit. In addition, the ADEQ has cited TDS for burning sodium azide, which is not listed in the

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Part A Application. ADEQ considers the Burn Area a hazardous waste landfill, and TDS has never submitted a Part A Application for this use of this unit.

The surface impoundments for waste water and propellants at Plant 3 were included in the Part A permit application and have been used as waste propellant burn areas (i.e., liquids were allowed to evaporate from the impoundment and the propellant burned off). TDS indicated in their Part B Permit Application (1988) that the impoundments were no longer used as burn pits, and as such, it was not necessary to include them in the Permit Application. However, the Part B permit application did not include closure plans for the impoundments. The 1990 inspection report indicates that the impoundments are operating without complying with any regulatory requirements.

Waste storage and accumulation areas at Plant 1 also were not included in the Part B Permit. It is impossible to determine from the inspection reports how long the wastes remain at any one accumulation/ storage area before being transported off the facility or to the Burn Area, because TSD does not label drums in the accumulation/storage areas properly, if at all. TSD has been cited repeatedly for failure to label drums properly.

_____ Not Operating RCRA TSDF; Source:

_____ Bankrupt Facility; Source:

_____ Non-Notifying TSDF - should be a RCRA TSDF but didn't submit a Part A permit application; Source:

_____ Generator only - never operated as a TSDF; Source:

__X__ Permitted TSDF or SEEKING PERMIT; Source: Part A and B Permit Applications, Conversation with Ed Czira, ADEQ

Date Permitted: ISD issued 1981 Agency: USEPA

Part B Permit Application Submitted? Yes

Permit Application Review Lead (circle)
EPA STATE OTHER (specify)

USEPA and ADEQ will jointly share lead in reviewing Part B Permit Application.

Corrective Action in (draft) Permit? NO but will be added before next draft.

Expected Permit Issuance Date: UNKNOWN

ADEQ and TDS currently are negotiating a settlement of the Civil Complaint filed against TSD by ADEQ. As part of the settlement, the Part B Permit Application will be revised.

Permit Expiration Date:

Permit Renewal Application Submitted Y N

(Expected) Renewed Permit Issuance Date:

Renewed Permit Expiration Date:

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_____ Closed or Closing Facility; Source:

Closure Plan Submittal (Expected) Date:

Closure Plan Review Lead (circle all applicable):
EPA STATE OTHER (specify):

Closure Plan Approved? Y N Date:

Closure Certification Received? Y N

Closed? Y N

Closure Certification accepted by EPA/State Regulatory Agency?
Y N

_____ Post-Closure Permit; Source:

Post-Closure Permit Application Submitted?
Y N

Post-Closure Permit Application Review Lead
EPA STATE Other (specify)

Corrective Action in (draft) Permit Y N NA

(Expected) Post-Closure Permit Issuance Date:

__X__ Combination: some units closing, some seeking permit (i.e., partial closure). Source: Conversation with Ed Czira, ADEQ

Explain:

Initially, Plants 2-6 were on contiguous property, which was leased either from the State or U.S. Government. However, through changes in the lease agreements over time, the properties are no longer contiguous, and the nonleased portions will have to undergo RCRA closure. The Closure Plan(s) will be included in the revised Part B Permit Application to be submitted after the Civil Complaint is settled (see above).

_____ Part A Withdrawal Candidate; Source:

Explain:

_____ RWQCB Waste Discharge Requirements requiring investigation and/or remediation in Effect (CA only)

Other Comments:

V. OTHER REGULATORY ACTIVITIES RELEVANT TO CORRECTIVE ACTION

A. Contact Person(s):

Date	Name Contacted	Phone	Agency
6.			EPA-Enforcement (RCRA)

7.			EPA-CERCLA
8.	8/15/91 Ed Czira	(602) 257-6822	State-Enforcement (AZ DEQ)
9.			State-Superfund
10.			Other (specify)
12.			

B. Activity

Instructions: mark all applicable; note any pertinent outstanding violations.

_____ EPA Enforcement Action with Activities Relevant to Corrective Action; Source:

Date:
Explain:

__X__ State Enforcement Action with Activities Relevant to Corrective Action; Source: Civil Complaint No. CV 90-26811 against Talley Defense Systems filed in State of Arizona Superior Court by State of Arizona DEQ and Attorney General; Source: discussions with Ed Czira, ADEQ.

Date: October 1, 1990
Explain: The complaint cites Tally for repeat violations of hazardous waste management regulations as specified in 1985-1990 hazardous waste inspections, and improper management of the surface impoundments at Plant 3. The first count authorizes ADEQ to obtain a temporary restraining order, preliminary injunction or permanent injunction against TDS restraining them from continuing to violate regulations, and correct continuing violations of regulations. The second count authorizes civil penalties up to $10,000 for each day TDS has violated the regulations.

_____ Regional Water Board Order or WDR Requiring Corrective Action (CA only); Source:

Date:
Explain:

_____ Other Agency Enforcement Action with Activities Relevant to Corrective Action; Source:

Date:
Explain:

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VI. OVERALL STATE LEVEL OF INVOLVEMENT IN CLEAN-UP ACTIVITIES (based on state actions, level of state staff person's oversight) Mark one:

_____ High __X__ Medium _____ Low _____ None

Rationale:

1) Ed Czira of Arizona DEQ is the person assigned to TDS who reviews documents, and conducts annual hazardous waste inspections of the TSD plants. Mr. Czira is very knowledgeable of the permitting and enforcement history at the TDS Facility.

2) ADEQ has cited TSD for violations of hazardous waste regulations identified during annual inspections. DEQ had been citing TDS annually since 1985 for some of the same violations, yet not until 1990 was a civil complaint filed. ADEQ is the lead on negotiating the agreement with TDS that will resolve the civil complaint.

3) ADEQ has allowed TDS to dispose of propellant-contaminated waste water at Plant 3 in unlined surface impoundments without citing them (until 1988) for failure to manage the impoundments according to regulations. In addition, DEQ never has required TDS to add the impoundment to the Part A or Part B Permit Applications, nor have they required TDS to install a groundwater monitoring system around the impoundments although the impoundments appear (from figures in the 1987 Part B Application) to be within a groundwater recharge area.

4) ADEQ has never cited TDS for their surface or in-ground discharges of potentially hazardous substances from the various sink drains and sumps at Plant 1.

5) ADEQ has indicated that they and USEPA will jointly share the lead in reviewing TDS's Part B Permit Application (which will be resubmitted after the civil complaint is resolved).

VII. FACILITY WILLINGNESS/ABILITY TO PERFORM CORRECTIVE ACTION

_____ Facility is cooperative

__X__ Facility is uncooperative; Explain:

TDS knowingly and repeatedly has violated hazardous waste regulations applicable to all of their TSD operations especially the Plant 3 surface impoundments, Burn Area and hazardous waste storage/accumulation areas. Drums of wastes are not labeled or managed according to regulations. TDS apparently ignores violations of hazardous waste regulations cited in inspection reports, even when they are repeat violations, and blatantly ignores requirements related to maintaining a safe work place for their employees.

_____ Unknown

_____ Facility may be financially unable to complete work. Explain:

Other Comments:

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VIII. RECOMMENDATION FOR FURTHER ACTION (mark all applicable)
Instructions: Consider factors in Sections I - VII to arrive at final recommendation for further action. If several actions are recommended, prioritize as Action 1, 2, etc.

_____ Imminent and substantial danger to human health or the environment requires issuance of RCRA 7003 Order and/or CERCLA 106 Order.

__X__ Stabilization evaluation completed

_____ Stabilization required
__X__ Stabilization not required
_____ Stabilization not feasible
_____ Further investigation necessary (to determine need/feasibility of stabilization)

_____ Issue RCRA 3013 order. Release of hazardous waste presents a substantial hazard to human health or the environment (investigation only).

_____ Refer to CERCLA for further follow-up.

_____ Facility unwilling or unable to perform corrective action (explain in Section VII)

_____ Other (e.g. mining waste, active Superfund site, generator only, etc.)
Specify:

_____ No further CERCLA action

1. X Conduct an RFA

_____ as prelude to expected corrective action order

__X__ as prelude to permit issuance (State responsible)

_____ Use a 3007 letter to obtain more information regarding the following items (a subsequent recommendation must be made after the information is received):

_____ Negotiate 3008(h) Consent Order
- Must have documented or probable release of hazardous wastes or constituents
- Must be a RCRA TSDF that has interim status (i.e. not yet permitted, including illegal TSDF that should have had interim status.
- For California, must not have a permit issued by DTSC between 1/13/83 and 11/8/84. Permits issued by DTSC between 11/9/84 and 1/31/86 are considered partial

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RCRA-equivalent permits; with respect to corrective action, facilities permitted between 11/9/84 and 1/31/86 have interim status.

_____ Incorporate corrective action into post-closure permit through 3004(u) and (v).

2. X Incorporate corrective action into permit through 3004(u) and (v).

_____ Include corrective action in closure plan (appropriate only for surface soil releases near regulated units)

_____ Ongoing or planned State action is sufficient to address release(s). Defer to state or other agency lead (identify):

_____ No further RCRA action at present; re-evaluate next year.

_____ No further RCRA action.

_____ Other (specify):

Comments:

✓

_____ Recommendation Accepted

Paula Bissoi

~~Karen Schwinn~~
Chief
~~Waste Compliance Branch~~ HWNG Section

Environmental Benefits:

Raise priority to _____ due to near coastal waters impacts.

Raise priority to _____ due to estuary project impacts.

When applicable, entity to perform RFA:

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_____ State

_____ FIT (CERCLA)

_____ contractor (RCRA)

_____ Other; specify:

cc: Nancy Nadel, EPI Coordinator, H-4-4

DCN: TZ4-R09052-RN-M18372

DRAFT
PRELIMINARY REVIEW REPORT
FOR
TALLEY DEFENSE SYSTEMS, INC.
MESA, ARIZONA

EPA I.D. NOS.:

AZD980816276 (Plant 2);
AZD980885362 (Plant 3);
AZD982361347 (Plant 4);
AZD982471096 (Plant 6);
AZD020132502 (Burn Ground) Complete Report Filed under this EPA ID.#.

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